Integrating Biodiversity in EIA in Quebec Lessons from experience

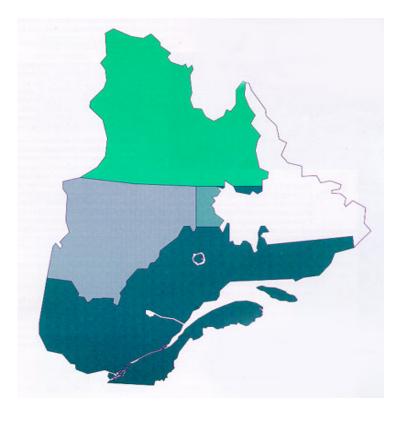
by **Pierre André, professeur**

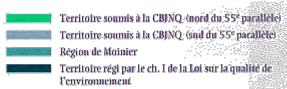
Département de géographie Université de Montréal and

Claude Delisle, retired professor École Polytechnique de Montréal

Workshop on economy, society and biodiversity – From dependence to opportunities. Strategies and tools for the management of biodiversity and ecosystem services. December 7, 2011.

Environmental Protection Regimes in Quebec





EIA – A scientific exercise within a socio-political context and a decision-taking process

Biodiversity, one of the issues

Biodiversity Assessment Process within EIA Procedure

Biodiversity Description

Biophysical description, Ecosystems, Species, Genes

Project Activities Identification

Pre-construction, Construction,
Operation, Dismantlement

Impact Identification and Quantification

Interaction between Biodiversity and Project activities

Impact Management Plan

Avoidance, mitigation, compensation

Report Assessment

Inter-ministerial Review Public Hearing

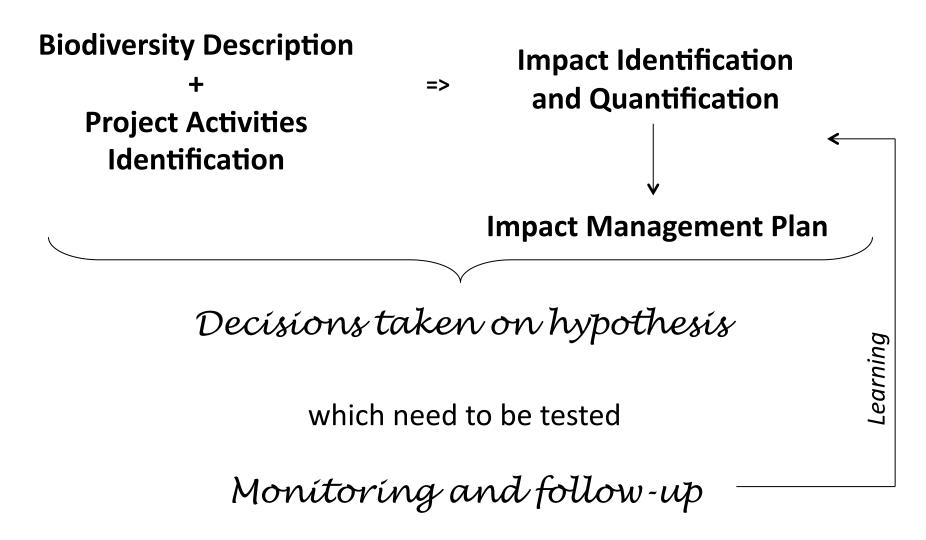
Decision Taking

Authorization with conditions

Follow-up

Monitoring...

EIA is a sum of hypothesis



Biodiversity in EIA

- Description of ecosystems and habitats
- List of taxa (plants and animals)
- Population estimations and other informations
 - Spatial and seasonal variability
- Behavioural studies
- Emphasis
 - Rare, fragile or protected ecosystems
 - Species at risk

Lessons from experience

Dispersion or loss of taxonomic information

- Lack of confidence on identifications
- Loss of specimens and samplings for validation
- Loss of data from surveys
- Need for a compulsory deposit of both specimens and data
- Representativeness of the descriptions of populations, communities and ecosystems
- Ownership of knowledge

Lessons from experience

- Dispersion or loss of taxonomic information
- Representativeness of the descriptions of populations, communities and ecosystems
 - Relevant emphasis on species and ecosystems at risk
 - Sub-optimal allocation of resources
 - Sampling strategies frequently criticized
 - Need more guidelines and more control from the administration
- Ownership of knowledge

Lessons from experience

- Dispersion or loss of taxonomic information
- Representativeness of the descriptions of populations, communities and ecosystems

Ownership of knowledge

- Data and specimens collected owned by the project proponents
- Monitoring and follow-up report are also owned by proponents and are confidential documents
- Need to require from developers to make public follow-up reports as well as data and specimens

Conclusion

- Biodiversity is a real issue recognized by the Quebec Sustainable Development Law and considered in EIA.
- We have developed a good expertise after more than 30 years of conducting EIA.
- We need to improve the practice of EIA to best meet the requirements of science
 - the specimens and data should be available for taxonomic expertise
 - inventories should be representative in time and space within the limits of the resources available, and
 - information should be best managed, public and accessible.

We need to best manage knowledge to improve learning